



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,705	11/12/2003	Timothy E. Ostromck	46030/P042US/10407177	7603

29053 7590 08/24/2007
FULBRIGHT & JAWORSKI L.L.P
2200 ROSS AVENUE
SUITE 2800
DALLAS, TX 75201-2784

EXAMINER

BAYAT, ALI

ART UNIT	PAPER NUMBER
----------	--------------

2624

MAIL DATE	DELIVERY MODE
-----------	---------------

08/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/706,705

Applicant(s)

OSTROMEK ET AL.

Examiner

Ali Bayat

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/21/05; 11/12/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eryurtlu (US 6,977,961) in view of Furman et al. (Pub.No. US 2007/0019856 A1).

In regard to claim 1, Eryurtlu provides for determining a previous matrix comprising image information associated with a previous image of the plurality of images (Fig.1A element 72, col. 4 lines 20-27); generating current image data corresponding to a current image of the plurality of images (Fig.1A element 2, col. 4 lines 20-27); and determining a current matrix using the previous matrix and the current image data (Fig.1A element 2, col. 4 lines 20-27), the current matrix comprising image information associated with the current image (Fig.1A element 2, col. 4 lines 20-27); and computing a fusion matrix according to the current matrix of each sensor of the plurality of sensors, the fusion matrix operable to initiate generation of a fused image (Fig.1A element 74, see the residual produced by subtracting the values in a motion compensated block of a previous frame, from the values in the current frame video matrix 2 in step 74). Eryurtlu does not teach for receiving light at a plurality of sensors, the light associated with a plurality of images. Furman provide for receiving light at a

Art Unit: 2624

plurality of sensors (Fig. 4B elements 52), the light associated with a plurality of images (Fig. 4B. element 52A, see CCD matrix photo-detectors). It would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Furman with the system and method of Eryurtlu, for optical inspection of objects for defects, and in particular, for optically detecting random fabrication defects in semiconductor patterned structures such as integrated circuit dies or chips. See field of the invention.

With regard to claims 2-4,6-8,11-13,15-17, see the rejection of claim 1. They recite similar limitations as claim 1. Hence they are similarly analyzed and rejected.

As to claims 5 and 14, Eruyurtlu provides for computing the fusion matrix at a fusion processor, the fusion processor comprising a member of the group consisting of a neural net, a plurality of logic operators, a field programmable gate array (FPGA), one or more solid state circuits, and a hardware architecture (col.2 lines 5-10, note the processor).

In regard to claims 9 and 18, Eruyurtlu does not teach for the method, wherein each sensor of the plurality of sensors is associated with a particular wavelength range. Furman provide for the plurality of sensors is associated with a particular wavelength range (para.62). It would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Furman with the system and method of Eryurtlu, for optical inspection of objects for defects, and in particular, for optically detecting random fabrication defects in semiconductor patterned structures such as integrated circuit dies or chips. See field of the invention.

Art Unit: 2624

With regard to claims 10 and 19, see the rejection of claim 1. They recite similar limitations as claim 1. Hence they are similarly analyzed and rejected.

In regard to claim 20, see the rejection of claims 1 and 5. They recite similar limitations as claim 20. Hence they are similarly analyzed and rejected as claim 20.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Bayat whose telephone number is 571-272-7444. The examiner can normally be reached on M-F 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/706,705

Page 5

Art Unit: 2624

Ali Bayat *AB*
Patent Examiner
Division 2624
8/20/07

Matthew C. Bella

MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600